



Third annual GNSS Raw Measurements Taskforce Workshop

GSA Headquarters, Prague, 26 June 2019

- 09:00 – 9:30 **Welcome coffee**
- 09:30 – 9:40 **Welcome by the Head of Market Development Department**
Fiammetta Diani, GSA
- 09:40 – 10:00 **What`s new in GNSS Raw Measurements Task Force**
Martin Sunkevic, Justyna Redelkiewicz, GSA
- 10:00 – 10:30 **New tools for Android use of GNSS raw measurements**
Frank van Diggelen, Google
- 10:30 – 11:00 **GNSS Raw Measurements experience from app competitions**
Justyna Redelkiewicz, GSA
Paolo Crosta, European Space Agency
- 11:00 – 11:20 **Coffee break**
- 11:20 – 13:00 **GNSS Raw Measurements for robustness**
Yoav Zangvil, Regulus Cyber, "A close-up on Regulus' GNSS Resiliency Report: testing the effects of spoofing on Android systems and other applications"
Moises Navarro-Gallardo, Airbus, "Guidelines: OS-NMA implementation in smartphones"
Sophie Damy, JRC, "JRC Testing Capabilities for OS-NMA enabled receivers"
Luis Serrano, STMicroelectronics, "Teseo V: an OS-NMA enabled dual-band chipset"
Joaquin Reyes, GSA, "EGNSS Contribution to CAP geotaging photo app"
Flavio Sbardellati, GSA, "Upcoming R&D funding opportunities"
Anraud Ginestet, CS Systemes D`Information, "Multi-constellation navigation messages introduction inside a mobile application"



13:00 – 13:45 Lunch

13:45 – 15:10 **GNSS Raw Measurements for high accuracy applications (part 1)**

Miquel Garcia-Fernandez, Rokubun, "Smartphone Dual-frequency GNSS data pre-processing for high accuracy applications"

Jannes Wubbena, GEO++, "Smartphone (PPP-) RTK: First results and challenges"

William Roberts, NSL, "FLAMINGO – Encapsulation of high accuracy positioning service for Smartphones and IoT"

Lotfi Massarweh, O ThiSaVRoS, "GADIP3 app: GNSS Android-Based Dual-frequency Iono-estimated Precise Point Positioning"

Jorge Morán, ESSP, "EDAS differential GPS corrections for Smartphones"

Roland Wagner, President of the Association of Geoinformatics, Mobile 2.0 with Location Based Apps (LBA) 2.0: From Read to Write with "groundediting"

15:10 – 15:30 Coffee break

15:30 – 16:45 **GNSS Raw Measurements for high accuracy applications (part 2)**

Julia Diekert, Reiner Jäger, University of Applied Sciences Karlsruhe, "NAVKA SmartphOne RTK - Cycle Slip and Ambiguity Robust GNSS Algorithms & Software for GNSS Raw Data on the Smartphone"

Himanshu Sharma and Mohamed Bochkati, University of Bundeswehr, "RTK with Smartphone and the Need of Sensor Fusion"

Pavel Vaclavovic, RIGTC, "Analyses of raw GNSS observations collected by the Android device Xiaomi Mi8"

Antoine Grenier, Celine Ragoin, Valerie Renaudin, IFSTTAR, "Enabling Precise Point Positioning on GNSS dual-frequency smartphones"

Marco Fortunato, "Sapienza" University of Rome, "GNSS-Based Heading and Velocity Precise Estimation for Smartphone Pedestrian Navigation"

16:45 – 17:00 **Q&A and Final remarks**
Justyna Redelkiewicz, GSA